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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,921	11/25/2003	Robert Formisano	22602-095373	6790
25006	7590	10/27/2006	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C			DUNHAM, JASON B	
PO BOX 7021			ART UNIT	
TROY, MI 48007-7021			PAPER NUMBER	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/721,921	FORMISANO, ROBERT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason B. Dunham	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)                     | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Replacement drawings were submitted and claims 1 and 32 were amended in applicant's reply filed August 21, 2006.

### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because: see attached draftsman's review. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-7, 9-10, 12-24, and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakelam (U.S. Patent No. 6,859,768) in view of Attra (U.S. Patent No. 7,006,977).**

Referring to claim 1. The combination of Wakelam and Attra discloses a residential construction cost estimation process comprising the steps of:

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- Inputting residential project criteria (Wakelam: abstract & Attra: abstract);
- Selecting residential design characteristics (Wakelam: abstract & Attra: abstract);
- Calculating a virtual geometry based on the selected residential design characteristics and inputted residential project criteria (Wakelam: abstract & Attra: figure 3);
- Selecting residential assemblies of construction based on the calculated virtual geometry, selected residential design characteristics and inputted residential project criteria (Wakelam: abstract & Attra: figures 1-3);
- Selecting residential component options based upon the selected residential assemblies of construction, the calculated virtual geometry, selected residential design characteristics and inputted residential project criteria (Wakelam: abstract & Attra: figures 1-3);
- Calculating a cost of each of the selected residential component options (Wakelam: column 3, lines 34 – 46 & Attra: figures 3-5);
- Calculating a summary construction cost of a residence at a component level, wherein the cost is dynamically linked to each of the inputted and selected options of the preceding steps, whereby the cost of the residence may be dynamically modeled at a detailed component level at any stage of the design development process (Wakelam: column 3, lines 34 – 46 & Attra: figures 3-5).

Wakelam discloses all of the above but does not expressly disclose a construction cost estimation process for residential homes. Attra discloses a construction cost estimation process for residential homes (Attra: abstract). It would

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have been obvious to one of ordinary skill in the art at the time of applicant's invention to have modified the process of Wakelam to have included residential homes, as taught by Attra, in order to allow users to estimate the cost of custom homes (Attra: figure 4 & column 6, line 18-column 7, line 14).

Referring to claim 2. The combination of Wakelam and Attra further discloses a process wherein the data comprising inputted and selected information is stored in computer memory and the cost is computer calculated, the cost capable of being altered such that a new cost is automatically recalculated at a component level based upon the dynamic interaction of the altered information and the step of calculating a cost of the residence (Wakelam: abstract & column 3, lines 34-46).

Referring to claim 3. The combination of Wakelam and Attra further discloses a process wherein the step of identifying a cost includes a computer interaction with a database of cost (Wakelam: column 3, lines 34-46).

Referring to claim 4-7. The combination of Wakelam and Attra further discloses a process wherein the database of costs is adjustable and is adjusted to reflect:

- Changing labor and material market conditions (Wakelam: column 13, lines 6-21).
- Changing sales tax rates (Wakelam: figure 1b);
- Changing sub-contractor general conditions costs (Wakelam: figure 1b);
- Escalation for purposes of estimating construction costs at a future construction date (Wakelam: figure 1b).

Referring to claim 9. The combination of Wakelam and Attra further discloses a process wherein the step of calculating a cost is calculated referencing a total finished area of the residence (Wakelam: figure 3).

Referring to claim 10. The combination of Wakelam and Attra further discloses a process wherein the step of calculating a cost is calculated referencing a total constructed area of the residence including finished and unfinished areas (Wakelam: figures 2a-2k).

Referring to claim 12. The combination of Wakelam and Attra further discloses a process wherein the step of calculating a cost is calculated upon the unique combination of components and attributes of the residence (Wakelam: abstract).

Referring to claim 13. The combination of Wakelam and Attra further discloses a process wherein an alternate cost at a component level reflecting altered information, can be dynamically compared to a base line cost at a component level of the originally inputted and selected information, for documenting the impact of altered information on the cost of the residence (Wakelam: column 13, lines 35-50).

Referring to claim 14. The combination of Wakelam and Attra further discloses a process wherein an alternate cost at a component level reflecting altered information, will self document the component level impact of altered information on the cost of the residence (Wakelam: column 13, lines 22-50).

Referring to claim 15. The combination of Wakelam and Attra further discloses a process including the step of inputting information into a data collection tool prior to the step of inputting project criteria (Wakelam: figure 2G).

Referring to claim 16. The combination of Wakelam and Attra further discloses a process wherein the step of data collection includes compilation of information entered by a user (Wakelam: figure 2G).

Referring to claim 17. The combination of Wakelam and Attra further discloses a process wherein the step of data collection includes representative drawings of the residence (Wakelam: column 3, line 64 – column 4, line 14).

Referring to claim 18. The combination of Wakelam and Attra further discloses a process wherein the step of data collection includes a web-based interface that collects and directly inputs the project criteria (Wakelam: column 7, lines 26-51).

Referring to claim 19. The combination of Wakelam and Attra further discloses a process wherein the step of data collection includes a questionnaire with responses inputted into a computer or a prepared paper form (Wakelam: figure 2G). The examiner notes that entering data in a prepared form as disclosed by Wakelam in figure 2G is equivalent to filling out a questionnaire.

Referring to claim 20. The combination of Wakelam and Attra further discloses a process wherein the step of calculating a virtual geometry is calculated based upon the inputted project criteria and the selected design characteristics (Wakelam: abstract).

Referring to claim 21. The combination of Wakelam and Attra further discloses a process wherein the step of selecting assemblies of construction includes an interaction of logical formulas dependent upon the selected design characteristics for self-directing the assemblies of constructions (Wakelam: figures 4A – 4I).

Referring to claim 22. The combination of Wakelam and Attra further discloses a process wherein the step of selecting assemblies of construction includes an interaction of logical formulas dependent upon the selected design characteristics for self-correcting the assemblies of construction components (Wakelam: figures 4A – 4I).

Referring to claim 23. The combination of Wakelam and Attra further discloses a process wherein the step of selecting component options includes an interaction of logical formulas dependent upon the selected system construction components for self-directing the component options (Wakelam: column 8, lines 17-37).

Referring to claim 24. The combination of Wakelam and Attra further discloses a process wherein the step of selecting component options includes an interaction of logical formulas dependent upon the selected system construction components for self-correcting the component options (Wakelam: column 8, lines 17-37).

Referring to claim 31. The combination of Wakelam and Attra further discloses a process including outputting functionally descriptive material capable of use in a general building specification (Wakelam: column 1, lines 7-12).

Referring to claim 32. Claim 32 is rejected under the same rationale set forth above.

**Claims 8,11, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wakelam (U.S. Patent No. 6,859,768) and Attra (U.S. Patent No. 7,006,977) in view of Burns (U.S. Patent No. 5,189,606).**



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Referring to claims 8 and 11. The combination of Wakelam and Attra discloses all of the above as noted under the 102 rejection but does not expressly disclose a process including identifying a cost dependent upon geographical location and entering a zip code. Burns discloses a construction estimation process wherein:

- The step of identifying a cost includes computer interaction with a database of geographically dependent factors (Burns: column 17, lines 10-27).
- The database of geographically dependent factors is based upon an entered zip code and wherein the geographically dependent factors may be selected from the group consisting of:
  - City, state, construction market adjustment factor, labor or material adjustment factor, sales tax rate, sub-contractor general conditions, and escalation (Burns: column 17, lines 10-27).

It would have been obvious to one of ordinary skill in the art to have to modified the process of Wakelam/Attra to have included identifying a cost dependent upon geographical location and entering a zip code, as taught by Burns, in order to identify cost differences based on location (Burns: column 17, lines 10-27).

Referring to claim 25-30. The combination of Wakelam and Attra discloses all of the above as noted under the 102 rejection but does not expressly disclose a process including calculating an energy model. Burns discloses a construction estimation process wherein:

- An energy model of the residence is calculated (Burns: figure 13).

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- The step of dynamically calculating an energy model of the residence includes the step of calculating energy consumption based upon the outside ambient temperature (Burns: column 5, lines 57 – column 6, line 3). The examiner notes that Burns discloses calculating an energy model based on climate conditions and it is well known within the art to perform calculations based upon the heat loss per hour, the AFUE rating of a furnace, the difference between the indoor design temperature and the outside design dry bulb temperature, a correction factor that includes the effects of rated full load efficiency, part load performance, over sizing and energy conservation devices, an additional empirical correction factor for heating effect versus 65 degree F days, the heating degree days for the geographic location of the residence and the energy fuel value of the heating fuel used.
- The step of dynamically calculating an energy model of the residence includes calculating a heating energy cost based on the energy consumption calculation and a fuel cost selected from the group consisting of: cost per Therm, cost per gallon, and cost per kwh (Burns: figure 13).
- The step of dynamically calculating an energy model of the residence includes an interaction with a database of geographically dependent factors (Burns: column 17, lines 10-27).
- The geographically dependent factors comprise outside design dry bulb temperature and annual heating degree days (Burns: column 5, lines 57 – column 6, line 3).

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- The geographically dependent factors are selected by zip code (Burns: column 17, lines 10-27).

It would have been obvious to one of ordinary skill in the art to have to modified the process of Wakelam/Attra to have included calculating an energy model, as taught by Burns, in order to identify energy cost differences based on location (Burns: column 17, lines 10-27).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason B. Dunham whose telephone number is 571-272-8109. The examiner can normally be reached on M-F, 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Smith can be reached on 571-272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JBD  
Patent Examiner  
10/17/06

  
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